REMARKS

Claims 1-58, 60-71 and 73-79 were previously pending in this application.

Claims 29-49, 71, 73-77 and 79 were previously withdrawn from consideration.

By way of the foregoing amendments, Claims 1, 29, 42, 50, 57, 58, 61, 62 and 78 have been amended and Claim 65 has been cancelled. Claims 1, 29 and 42 have been amended to change "with the further proviso that" to – and wherein --, while Claims 57, 58, 61 and 62 have been amended to change "comprises" to -- consists essentially of -- as suggested by the Examiner. Claim 44 has been designated as withdrawn, as noted by the Examiner in the Office Action. Claims 50 and 78 have been amended to incorporate the structure of original Claim 65 which has been cancelled. No new matter has been added.

In the Office Action of August 2, 2011, various formal objections were made and the claims were rejected over art. In particular, the Examiner rejected claims 1-15, 18-21, 23, 24, 50-58, 60-63, 65-67, 70 and 78 under 35 USC 102 (e) as being anticipated by Saavedra et al. (US 2006/0057410 A1; WO 2004/024433) in view of several references concerning butadiene and styrene butadiene copolymer (see Wolf et al. (US Patent No. 6406763)). Furthermore, Claims 16, 17, 22-28, 64, 68 and 69 were rejected under 35 USC 103 (a) as being unpatentable over Saavedra et al. and additional references only on the basis of obviousness.

As amended, this case is believed in condition for allowance. The various claims have been amended to attend to the Examiner's objections under 35 USC §112, second paragraph and Claims 50, 78 have been amended to recite a novel three layer structure overcoming the novelty rejections previously made. The art rejections as to other claims are not supported by the Saavedra. et al reference and should be withdrawn. In this regard, the Examiner's conclusions are speculative and indeed, contrary to the actual disclosure of Saavedra et al. The packaging laminates of the present invention exhibit excellent properties including peel strength barrier properties and superior optical properties such as low haze. Haze values of 2-3% are reported in

the specification as compared with 7-8% for films of Saavedra et al. containing norbornene copolymers. Compare Table 3 of the instant application with Table II of Saavedra et al.:

Table 3 (Invention)

Physical Properties of Film	Test Method (ASTM)	Units	Example 6 Film	Example 7 Film	Example 8 Film
Thickness	N/A	μm	300	300	300
Density	N/A	g/cm^3	1.02	1.02	1.02
Water Vapor Transmission Rate	F-1249	g/m^2/ 24 hrs.	0.31	0.32	0.28
Light Transmission	D-1003	%	93	93	93
Haze	D-1003	%	2.2	2.9	2.4
Peel Strength	D-903	lbs_f/in.	1.72	1.62	0.74
Peak Peel Strength	D-903	lbs_f/in.	1.89	1.69	0.80
Yield	N/A	m^2/kg	~ 3.20	~ 3.20	~ 3.20

Table II of Saavedra et al.:

Table II. 5-layer high clarity, high stiffness film results

Example No	A=Skin% of total thickness	B=Inner/ % of total thickness	C=Core% of total thickness	BUR	Haze	2% Secant Modulus	Shrink Tension 150C (MD)	Shrink Tension 150C (CD)	Shrinkage % 150°C Avg (MD)	Shrinkage % 150°C CD Avg. (CD)
5	LDPE 5011/10%	LDPE 1365/20%	HDPE DBDB 1095/60%	2.5	10.67	65038	16.4	very low	29.8	14.4
CS L	LDPE 5011/10%	LDPE 1365/20%	PP DS 6D82/40%	2.5	7.30	45939	18.4	very low	81.05	25.1
6	PP DS 4D05/10 %	LDPE 1365/30%	PP DS 4D05/60%	3.6	4.54	62438	23.6	very low	81.8	34.7
7	PP DS 5D42/10 %	LDPE 6621/30%	PP DS 6D82/60%	3.6	7.86	75565	20.0	very low	82.05	38.7
8	PP DS 8D62/10 %	LDPE 1385/30%	Topas 8007/60%	3.6	7.09	136365	25.4	13.6	73.9	40.7
9	PP DS 8D82/10 %	LDPE 1365/30%	K-resin/ 30%	3.6	6.25	59417	23.8	8.5	72.9	51.3
10	PP DS 6D81/10 %	LDPE 1385/59%	Topas 8007/20%	3.6	6.77	127784	24.9	13.2	75.15	41.6

The haze values are particularly surprising considering that the values reported by Saavedra et al. were on films nearly 10 times thinner, at 1.5 mils or 38 microns versus 300 micron sheet in Table 3 above:

Examples 5-10 and Comparative Sample L

5-layer high clarity, high stiffness films were produced on a conventional coextrusion blown film line without post-biorientation. The films all had an A/B/C/B/A film structure. The layers of the films had the components and percentage (of total film thickness) as shown in Table II. All of the films had an overall thickness of 1.5 mil.

Note test method D-1003, copy enclosed, paragraphs 7.4 and following:

7.4 *Report*:
7.4.1 Report the following data:
7.4.1.1 Source and identity of specimen,
7.4.1.2 Nominal thickness of specimen to the nearest 0.025 mm,
7.4.1.3 Total luminous transmittance, *Tt*, to the nearest 0.1 % (indicate the average when reporting average values and specify whether CIE Illuminant C or A is used),
7.4.1.4 Diffuse luminous transmittance, *Td*, to the nearest 0.1 % (indicate the average when reporting average values), and
7.4.1.5 Percent haze, to the nearest 0.1 % (indicate the average when reporting average values).

The present invention is directed, in part, to a film having a specific composition and structure. In this regard, Claim 1 is representative:

1. A film comprising:

a first layer comprising styrene butadiene copolymer;

a second layer comprising a cyclic olefin and disposed on said first layer; and

a third layer comprising styrene butadiene copolymer and disposed on said second layer as an outermost layer of said film,

wherein said first and third layers are substantially free of cyclic olefin and said second layer is substantially free of styrene butadiene copolymer and wherein each styrene-butadiene block copolymer layer consists essentially of (i) at least about 50 wt. % styrene residue; and (ii) from about 5 to about 50 wt. % butadiene residue; and (iii) optionally up to 10 wt. % other polymeric components.

The present invention film provides superior packaging properties in terms of transparency and physical properties as noted above and in the application as filed, page 7, line 6 and following to page 8, line 5:

> The film of the present invention can be used in packaging as an effective dust and/or moisture barrier. Using styrene butadiene copolymer in the first and third layers of the film allows the film to be substantially transparent, have superior optical properties, and be impact resistant and durable. Using the styrene butadiene copolymer also allows the film to be efficiently processed, have a pleasing tactile feel, and be thermoformable at low temperatures resulting in a low cost of producing the film. The film provides a 35% film yield advantage compared to competitive halogen-containing films due to a low density of the styrene butadiene copolymer. A higher quantity of the film of the subject invention can be purchased at the same weight as a comparative film because of the low density of the styrene butadiene copolymer.

Moreover, the present invention provides unexpected advantages, including surprising peel strength and the fact that tie layers are not required; *see* the application as filed, p. 22, lines 20-31:

> The films made in accordance with the present invention have the unexpected advantage of superior interlayer adhesion without the aid of an adhesive or tie layer. The absence of a tie layer is advantageous for several reasons. The multilayer film is easier to produce without the additional cost of adhesive or tie material and associated equipment. Tie layers may also impart detrimental optical properties to the film. Furthermore, the absence of a tie layer enables manufacturers with lower extrusion capacity to produce multilayered films in accordance with the present invention. For example, equipment with a maximum extrusion capacity of three layers would be able to produce a three layer SBC/COP/SBC film of the present invention, because no extruder capacity is utilized on the production of a tie layer. The films exhibit a surprisingly high peel adhesion value.

Regarding *Saavedra*, it is noted that this reference relates to shrink film and is not at all suggestive of the more specific combinations of the amended claims. In this regard, disclosure relating to films potentially including cyclo-olefin components and styrene-butadiene components appears on page 3 of *Saavedra*, lines 9-27 (WO version):

> In another preferred embodiment, the invention is a process for preparing a film having at least 3 layers, the process comprising the step of coextruding, via

> a hot-blown film process, a film comprising at least one inner layer between two skin layers, wherein: (a) the inner layer, or layers, comprises at least one stiffening polymer selected from the group consisting of low density polyethylene, linear low density polyethylene, high density polyethylene, blends thereof, polypropylene homopolymer, polypropylene random copolymer, styrene/butadiene copolymer, polystyrene, ethylene-vinyl acetate copolymer and cyclic-olefin copolymer, provided that when more than one inner layer is present, the inner layers can be the same or different; and, (b) the skin layers, which may be the same or different, comprise at least one of low density polyethylene; a blend of low density polyethylene and linear low density polyethylene; a blend of low density polyethylene and very low density polyethylene; polystyrene; ethylene-vinyl acetate copolymer; a blend of ethylene-vinyl acetate copolymer and linear low density polyethylene; cyclic-olefin copolymer; styrene-butadiene copolymer; or, polypropylene random copolymer, provided that the skin layers are devoid of a homogeneously branched polyethylene resin prepared with a single site catalyst; and (c) the film has a haze value of less than about 15%, a 2% secant modulus greater than about 50,000 psi and a cross-directional shrinkage greater than 0%, with the proviso that the hot-blown film process does not comprise double- bubble or tenter-frame orientation processes.

The Examiner's position that Saavedra et al is anticipatory as to any claim is untenable in view of the specificity of the claims and the lack thereof in the primary reference. The reference merely recites various polymers and fails to exemplify any multilayer remotely resembling those disclosed and claimed in this case. In particular, Saavedra et al. teaches a multilayer film having at least 3 layers, the film comprising at least one inner layer between two skin layers. The inner layer comprises at least one stiffening polymer selected from a list comprising 10 polymers among which cyclic-olefin copolymer but also styrene/butadiene copolymer is mentioned. The skin layers which may be the same or different comprise at least one polymer or polymer blend selected from a list of 8 polymers, wherein styrene-butadiene copolymer (SBC) but also cyclic-olefin copolymer (COC) are encompassed. It is stressed in Saavedra et al. that the skin layers are devoid of a homogeneously branched PE resin prepared with a single site catalyst.
One or more intermediate layers may also be sandwiched between the two skin layers.
Saavedra mentions as suitable SBC resins these of the K-resin® family of SBC and as suitable COCs Topas® COC copolymers. Furthermore in the Examples Saavedra discloses 11 resins which were used in the productionof the films. Among them Topas® 8007 and K-resins DK 11 and DK13 are disclosed. DK11 is a styrene-butadiene block copolymer containing about 75 wt-% styrene monomer and 25 wt-% butadiene monomer (cp. Wolf et al, col. 14, l. 45-49).

Table I demonstrates the properties of different 3 layer films produced with an A/B/A structure. None of the films comprises SBC or COC. Table II shows 5 layer films having an A/B/C/B/A structure. Among these films as a core layer Topas® is used but a K-resin as well. The inner and skin layers comprise PE or PP resins. According to table III multi-layer films comprising PS or K-resin in skin layers are provided; in these examples as core layers always PE resins are used. Notably, no cyclolefin layer is even suggested in combination with a styrene butadiene layer as is claimed in this case.

The Examiner's picking and choosing from Saavedra et al. falls short of providing a *prima facie* showing of either anticipation or obviousness of the claimed subject matter. As the Board recently noted in Ex Parte Jacques Faguet, Frank M. Cerio, Jr, Tsukasa Matsuda, and Kaoru Yamamoto, Appeal 2010-012312, Application 11/094,461 Technology Center 1700 (copy attached, rejections need to be supported with specificity by the art relied upon:

> For a rejection to be proper under 35 U.S.C. §102, a "reference must clearly and unequivocally disclose the claimed compound or direct those skilled in the art to the compound without *any* need for picking, choosing, and combining various disclosures not directly related to each other by the teachings of the cited reference."*In re* ***Arkley***, 455 F.2d 586, 587 (CCPA 1972). A prima facie case of obviousness is established where the Examiner demonstrates that the invention is nothing more than the predictable result of a combination of familiar elements according to known methods. *KSR Int'l. Co. v. Teleflex Inc.*, 550 U.S. 398, 416 (2007). On the other hand, "to have a reasonable expectation of success, one must be motivated to do more than merely [] 'vary all parameters or try each of numerous possible choices until one possibly arrived at a successful result, where the prior art gave either no indication of which parameters were critical or no direction as to which of many possible choices is likely to be successful."' *Pfizer, Inc. v. Apotex, Inc.* 480 F.3d 1348, 1365 (Fed. Cir. 2007) (*quoting Medichem, S.A. v. Rolabo, S.L.*, 437 F.3d 1157, 1165 (Fed. Cir. 2006)).

It should further be appreciated from the foregoing discussion that the Saavedra et al. reference merely states that components may be included in a layer but does not disclose, teach or suggest the claimed subject matter of this case. As noted in *KSR,* the fact that components of a claimed combination are known in the art does not render a combination invention obvious or otherwise unpatentable:

> ...When it first established the requirement of demonstrating a teaching, suggestion, or motivation to combine known elements in order to show that the combination is obvious, the Court of Customs and Patent Appeals captured a helpful insight. See *Application of Bergel,* 48 C.C.P.A. 1102, 292 F.2d 955, 956–957 (1961). As is clear from cases such as *Adams,* a patent composed of several elements is not proved obvious merely by demonstrating that each of its elements was, independently, known in the prior art....

KSR International Co. v. Teleflex Inc., 550 US 398, 418 (U.S. 2007).

Regarding the withdrawn claims, rejoinder is requested for the reasons of record, that is, because the claimed subject matter is directed to the same general inventive concept and the claims are linked by special technical features common to the various claims. Each independent claim requires a cyclic olefin layer bonded to a specified styrene-butadiene block copolymer layer which consists essentially of (i) at least about 50 wt. % styrene residue; and (ii) from about 5 to about 50 wt. % butadiene residue; and (iii) optionally up to 10 wt. % other polymeric components—which structure and composition distinguishes over the prior art the art and provides a common special technical feature to the various claims. The process/article distinction imposed by the Examiner is contrary to the Patent Cooperation Treaty which is applicable to this case and should be withdrawn.

If for any reason the Examiner would like to discuss this case, the Examiner is invited to call at the number listed below.

Respectfully submitted,

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